Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems	)	ET Docket No. 00-258
	)	
Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use By the Mobile Satellite Service	)	ET Docket No. 95-18
	)	
The Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band	)	IB Docket No. 99-81
	)	
Petition for Rule Making of the Wireless Information Networks Forum Concerning the Unlicensed Personal Communications Service	)	RM-9498
	)	
Petition for Rule Making of UTStarcom, Inc., Concerning the Unlicensed Personal Communications Service	)	RM-10024

REPLY COMMENTS OF CONSTELLATION COMMUNICATIONS HOLDINGS, INC.

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EXECUTIVE SUMMARY

Constellation urges the Commission to retain the current 2 GHz MSS allocations in their entirety and refrain from a rash determination of the future of 2 GHz MSS systems by regulatory fiat. Constellation believes that the Commission's proposals to re-allocate MSS spectrum in its Further Notice would have a chilling effect on the viability of the MSS service, and constitute a radical departure from past precedents supporting the evolution of new technologies to serve the public. Instead, the Commission should re-affirm its recent, market-oriented 2 GHz MSS licensing decisions by clarifying the flexibility of 2 GHz MSS systems to fully utilize the spectrum currently allocated for them and consolidate their operations to achieve more efficient operations.

The Commission should also recognize that 2 GHz MSS systems will satisfy part of the overall demand for advanced wireless services in both rural and urban areas. The additional spectrum requirements requested by terrestrial CMRS carriers can be satisfied without re-allocating any of the 2 GHz MSS spectrum. The allocation of the 1710 – 1770 MHz and 2110 – 2165 MHz bands proposed in the Further Notice, combined with the spectrum obtained from the re-allocation of UHF TV channels 60 – 69, are sufficient to satisfy the demonstrated requirements for additional spectrum for advanced wireless services by terrestrial carriers. The 1910 – 1930 MHz and 2385 – 2400 MHz bands identified for possible re-allocation in the Further Notice may be better utilized to re-accommodate displaced MDS facilities and to support UPCS operations under modified technical and operating rules along the lines advocated in the captioned petitions for rulemaking.

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REPLY COMMENTS OF CONSTELLATION COMMUNICATIONS HOLDINGS, INC.

Constellation Communications Holdings, Inc. ("Constellation") submits these Reply Comments in the above captioned proceeding.[1] In its initial comments in this proceeding, Constellation supported additional allocations for advanced wireless services and additional regulatory flexibility for 2 GHz MSS licensees, but opposed re-allocation of the 2 GHz MSS bands to other services. After assessing the initial comments, Constellation believes that a

[1] *See* Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, FCC 01-224, released August 20, 2001 ("Further Notice").

reasonable basis exists for satisfying the spectrum requirements for advanced wireless services without re-allocating all of the candidate non-MSS bands identified in the Further Notice. Specifically, as discussed below, Constellation proposes that the Commission: (a) allocate 115 MHz of spectrum at 1710 –1770 MHz and 2110 – 2165 MHz for advanced wireless services, including at least five megahertz at 1765 – 1770 MHz for time division duplex systems, (b) maintain the current MSS allocations at 1990 – 2025 MHz and 2165 – 2200 MHz, and implement policies for more flexible frequency use and selection of frequency assignments by the MSS licensees, including favorable treatment of consolidations between licensees, and (c) optimize the use of the 1910 – 1930 MHz and 2385 – 2400 MHz bands for the re-accommodation of Multipoint Distribution Service ("MDS") from the 2150 – 2162 MHz band and for Unlicensed Personal Communications Service ("UPCS").

I. The Current 2 GHz MSS Allocations Must Be Retained As An Essential Element Of Providing Advanced Wireless Services To The Public

The recently issued 2 GHz MSS licenses represent the culmination of lengthy international and domestic proceedings to establish an allocation and regulatory framework for the development of MSS. Constellation, in its initial comments in this proceeding, demonstrated that it would be arbitrary and capricious to deprive the 2 GHz licensees the full amount of spectrum allocation for their use so soon after the licenses were issued and before a full and fair opportunity has been provided to the licensees to demonstrate the benefits of this technology to the public.[2] It seems somewhat incongruous for some CMRS carriers to argue for a cohesive, long-term plan for advanced wireless service allocations[3] while at the same time urging

[2] *See* Comments of Constellation at 8-10. Similar views have been expressed by other 2 GHz MSS licensees.

[3] *See e.g.* Comments of ATT Wireless at 2 and Cingular at 5.

reduction of spectrum licensed to MSS applicants less than six months ago. Other parties have described past Commission experience in maintaining consistent support for the development of new technologies over an extended period of time.[4]

Some parties advocate the re-allocation of the 2 GHz MSS bands in order to achieve compatibility with terrestrial usage in other parts of the world.[5] However, the Commission rejected similar considerations when it declined to allocate the 1980 – 1990 MHz band to MSS that would have provided worldwide compatibility of MSS terminals.[6] Consequently, little weight should be given to comments supporting re-allocation of MSS bands simply to make them compatible with terrestrial allocations in other parts of the world.[7]

A. 2 GHz MSS Systems Are Essential To Extending Advanced Wireless Services To Rural And Underserved Areas

On numerous occasions, the Commission stressed the importance of extending advanced wireless services to rural and underserved areas, and recognized the capabilities of MSS technology to provide service to all portions of the country, no matter how remote. Constellation cited these decisions in its initial Comments.[8] The capabilities of MSS technology to provide advanced wireless services in rural and underserved areas are described by other parties in this

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4 For example, Celsat cites cellular, FM radio and UHF TV as examples of Commission regulatory patience in allowing new technologies to establish themselves in the market. *See* Comments of Celsat America at 15-16.

5 *See e.g.* Comments of Ericsson at 9-10, Motorola at 5-6, Telephone and Data Systems at 3, Verizon at 13.

6 Specifically, the Commission decided not to allocate the 1980 – 1990 MHz band to MSS in the United States even though it is allocated to MSS in all three ITU Regions. Several parties have described the international efforts to achieve the 2 GHz MSS allocations. *See e.g.* Comments of Boeing at 7-9, Satellite Industry Association ("SIA") at 6, TMI Communications at 3-5, and TIA/SCD at 2-5.

7 *See also* the Comments of Lockheed Martin Corporation, at 2-5, in support of this position.

8 *See* Comments of Constellation at 2, n. 3.

proceeding.[9] The importance of MSS in providing emergency and disaster communications was also discussed in the initial comments.[10] None of the proponents for the re-allocation of MSS spectrum have refuted these capabilities.

Moreover, little if any evidence has been provided that the MSS re-allocation to terrestrial networks would extend advanced wireless services into rural and underserved areas. Given the previous findings by the Commission regarding the need to serve customers in these areas, the Commission will need to address the requirements of the public in these remote areas before it re-allocates 2 GHz MSS spectrum. Specifically, the Commission must determine how rural customers would be served if the FCC re-allocated the MSS spectrum to terrestrial users. None of the proponents of the re-allocation have articulated a reliable means to serve rural customers if this re-allocation were to take place. Such a re-allocation would merely perpetuate and promote the schism that has developed between the telecommunication services offered urban/suburban users vis-à-vis those offered to rural users.

B. The Authorization Of An Ancillary Terrestrial Component Of MSS Systems Makes Additional Spectrum Available For Providing Advanced Wireless Services In Urban Areas

The terrestrial carriers advocating the re-allocation of 2 GHz MSS spectrum point to the growth in cellular and PCS as a basis to support their demands for more spectrum. However, the demand for additional spectrum for mobile services appears to be focused in high population density areas, i.e. urban and suburban areas, where the terrestrial carriers have reached the limits of cell splitting and other frequency re-use technologies.

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[9] *See e.g.* Comments of SIA at 2, Globalstar at 3-4, and New ICO Global at 7-11.

[10] *See e.g.* Comments of Globalstar at 9, New ICO Global at 11-13, and SIA at 3-4.

Reaching customers in urban areas has been difficult for MSS systems due to propagation conditions. However, the Commission recently proposed a means to ameliorate this problem by allowing MSS licensees to operate ancillary terrestrial facilities to provide service in areas where satellite signals are less reliable.[11] Adoption of these proposals will result in a more economic use of 2 GHz spectrum by allowing MSS licensees to serve the needs of customers located in both urban and rural areas without the need to allocate any additional spectrum for advanced wireless services.[12]

The terrestrial carriers advocating a re-allocation of 2 GHz MSS spectrum overlook the potential of ancillary terrestrial operations within the MSS allocated spectrum to satisfy at least part of the demand for advanced wireless services. While re-allocation of MSS bands may allow terrestrial CMRS carriers to expand their service in the urban and suburban areas they already serve, it will accomplish little in extending service by those carriers to areas that they do not currently serve. On the other hand, retention of the current 2 GHz MSS allocations with the addition of ancillary terrestrial operations enables 2 GHz MSS systems to satisfy some of the demand for advanced wireless services in the most populous areas where demand is the highest, while the satellite constellation extends these services into even the most remote parts of the country. In short, the net impact of the re-allocation of 2 GHz MSS spectrum will be to continue to deprive users in rural and underserved areas of advanced wireless services.

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[11] *See Notice of Proposed Rule Making*, in IB Docket No. 01-185, FCC 01-225 released August 17, 2001.

[12] *See e.g.* Comments of Progress and Freedom Foundation at 2-13.

C. The Commission Should Adopt Flexible Policies To Allow Market Forces To Govern MSS Development

Implicit in the positions of some parties advocating the re-allocation of MSS spectrum is the assumption that the Commission's 2 GHz MSS licensing approach is devoid of market-place regulation because the licensees did not obtain their licenses through auctions. For example, one party criticizes the Commission's 2 GHz MSS licensing framework "bears little resemblance to the market-oriented, flexible approach generally favored by … the Commission."[13] However, as explained in Constellation's initial Comments,[14] the Commission's 2 GHz MSS licensing structure shifts the decisions over how many systems should be built, and which licensees will succeed and which will fail, from regulatory fiat to the financial markets. It is difficult to ignore these market forces on MSS implementation since "MSS by its nature involves complex judgments about large investments, made over long time horizons, in an environment of extreme technological and marketplace uncertainty."[15] Moreover, the Commission should display the same degree of regulatory patience over the development of 2 GHz MSS systems as it has for the evolution of other new technologies.[16]

While spectrum auctions reflect the market-based selection of licensees advocated by various parties, they are not the only means of allowing market-oriented selection of successful competitors. Congressional exclusion of MSS licensing from auction-based licensing procedures does not exclude MSS operators from market forces since they must still compete in the market

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13 *See* Comments of Progress and Freedom Foundation at 7.

14 *See* Comments of Constellation at 6-8.

15 *See* Comments of Progress and Freedom Foundation at 8.

16 *See* Comments of Constellation at 4-6, Celsat America at 15-16 and New ICO Global at 19-21.

to obtain financing. It simply removes the market distortions that could occur if global MSS systems were subject to conflicting auctions in all of the countries they were designed to serve.[17]

(i) Unselected 2 GHz MSS Spectrum Should Be Re-Assigned Among MSS Licensees

The proposals to immediately re-allocate 10 – 14 MHz of 2 GHz MSS spectrum, or to re-allocate 2 GHz MSS spectrum if an MSS license is revoked for failure to achieve implementation milestones, are not consistent with a cohesive, long-term spectrum plans for implementing advanced wireless services. Moreover, as discussed below, uncertainties in the demand for IMT-2000/3G services make any justification for the immediate re-allocation of 2 GHz MSS spectrum suspect.

An immediate re-allocation of 2 GHz MSS spectrum as advocated by the terrestrial CMRS carriers would adversely affect the spectrum efficient implementation of MSS systems. At the same time it would provide the terrestrial carriers only a limited means to meet their needs for additional spectrum for advanced wireless services. This is for several reasons. First, the characterization of the 2165 – 2170 MHz as "unlicensed" by proponents of 2 GHz MSS re-allocation is incorrect and self-serving.[18] These bands are allocated to MSS and may be selected for operations by MSS systems under the current Commission policies. Second, 10 – 14 MHz of MSS spectrum would provide only a single pair of 5 or 7 MHz spectrum blocks for auctioning, which is less than the minimum 10 MHz spectrum blocks typically desired for such systems. Finally, elimination of any portion of the current 2 GHz MSS allocations would distort the

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[17] It should be noted that much of the spectrum licensed to the existing terrestrial carriers was acquired outside the auction process. Thus, the argument for a competitive playing field is misplaced.

[18] *See e.g.* Comments of Nokia at 3.

decision making of any 2 GHz MSS licensees in selecting the optimum portion of the bands in which to implement their systems while terrestrial systems are still being relocated.

As addressed in the comments filed by the MSS licensees, proposals to re-allocate blocks of 2 GHz MSS spectrum when MSS licenses are revoked for failure to comply with milestones is even more problematic since the MSS licensees require access to the entire 70 MHz of spectrum allocated to MSS at 2 GHz.[19] The number and timing of such decisions on MSS milestone compliance are unpredictable and may be distributed over an extended period of time. A spectrum allocation plan based on the random timing of the availability of pairs of 3.5 MHz spectrum blocks does not constitute a cohesive, long-term spectrum management scheme.

Instead, the Commission should affirm its decisions to license 2 GHz MSS systems and finalize its 2 GHz MSS spectrum assignment procedures. An essential element is the retention of the current 2 GHz MSS allocations in their entirety and the availability of the entire allocated MSS spectrum for use by whatever number of 2 GHz MSS systems the financial markets determine are commercially viable. A regulatory structure that provides for the pro rata assignment of 35 MHz of uplink and 35 MHz of downlink spectrum among the 2 GHz MSS systems that are actually financed and implemented will result in the most practical utilization of the 2 GHz MSS bands.[20] Such a flexible regulatory approach provides the most efficient framework for allowing the market itself to determine the proper balance between system capacity and cost on one hand, and market demand and pricing on the other. Only after the market has finally determined the success or failure of each of the 2 GHz MSS licensees,

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[19] *See e.g.* Comments of Boeing at 6-7, Constellation at 6-8, Globalstar at 4-7 and 12, New ICO Global at 15-16 and TMI Communications at 6-7.

[20] *See* Comments of Globalstar at 13-15.

including market demand, can the Commission realistically conduct a sound review of the utilization of the 2 GHz MSS spectrum allocations and determine whether any re-allocation would better serve the public interest.

Several parties[21] support the proposal for imposing various constraints on the frequencies selected by MSS operators, such as choosing contiguous bands or operating at frequencies at the top of the band. Constellation believes these proposals are premature and are spectrum and economically inefficient. Such constraints distort the market forces implicit in the Commission's current flexible approach to MSS frequency selection. For instance, these constraints would not allow MSS operators to select operational frequencies that would minimize the impact on terrestrial facilities not yet relocated or optimize coordination with other MSS operators. They also are unnecessary because the frequency agility required for 2 GHz MSS systems will permit the Commission to easily implement any decisions it might make on the future allocation status of the 2 GHz MSS bands once the final status of all of the 2 GHz MSS licensees is determined.

It is important that the Commission not distort such market forces by the restrictive or punitive regulatory proposals intended to facilitate the transfer of spectrum from MSS licensees to terrestrial CMRS licensees advocated by several parties. A "zero tolerance" policy against extension of time to complete construction milestones is not sustainable, either as a matter of law or of policy.[22] In addition, advocates of regulatory fees on MSS operators only seek to distort

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[21] *See e.g.* Comments of ATT Wireless at 9, Ericsson at 12-13, Telephone and Data Systems at 7-8, TIA/WCD at 7 and Verizon at 13-14.

[22] *See e.g.* Comments of Progress and Freedom Foundation at 19.

these market forces by imposing additional costs on MSS operators and taxing their operations in order to achieve some indefinable competitive parity.[23]

(ii) Consolidation Of MSS Operations Should Be Permitted To Improve System Efficiency And Viability

Most parties appear to recognize that the 2 GHz MSS licensees are necessarily required to raise large amounts of debt and equity in order to finance the construction and launch of space segment facilities and pay for operating costs until service ramp-up reaches the break even point. The success or failure of such ventures should depend on decisions made by the financial markets and not by regulatory authorities.

The Commission should view potential consolidations between licensees, or between satellite and terrestrial carriers, as a normal aspect of these market dynamics. In its comments, Constellation urges the Commission to look favorably upon proposals of MSS licensees to consolidate their operations and aggregate their assigned spectrum in order to achieve more efficient operations.[24] Other parties support this position.[25] Parties opposing such flexibility[26] are, in effect, advocating a more restrictive treatment of MSS licensees than that afforded licensees in other radio services in order to facilitate the transfer of spectrum from MSS operators to terrestrial competitors. The Commission should reject such regulatory restrictions. Instead, the Commission should encourage the financial markets to decide which MSS licensees

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23 *See e.g.* Comments of Progress and Freedom Foundation, 13-15. Again, it should be noted that much of the spectrum licensed to existing terrestrial carriers was not obtained through an auction process.

24 *See* Comments of Constellation at 14-16.

25 *See e.g.* Comments of New ICO Global at 36-45, Progress and Freedom Foundation at 15-17, and TMI Communications at 8-9.

26 *See e.g.* Comments of CTIA at 7.

succeed or fail, and should establish a flexible policy for approving such consolidations. Consolidation of facilities should also include aggregation of assigned spectrum, not relinquishment as advocated by certain parties.[27]

II. Spectrum Requirements For Advanced Wireless Services Can Be Satisfied Without Re-Allocating MSS Spectrum

Although there was support in the initial comments for the re-allocation of all of the non-MSS bands identified in the Further Notice for advanced wireless services, the comments of several parties raise significant issues that warrant a more measured approach to the re-allocation of some of these non-MSS bands. In particular, Constellation now believes that the spectrum requirements for advanced wireless services may not require the re-allocation of the 1910 – 1930 MHz and 2385 – 2400 MHz bands for this purpose.

At the outset, several parties point to analyses indicating that the demand for advanced wireless services may be depressed due to weak market conditions.[28] In addition, terrestrial CMRS advocates for spectrum re-allocation point to the new capabilities of IMT-2000/3G services to justify these increasing spectrum requirements. However, there is little discussion of how previously assigned cellular and PCS spectrum will be employed as current subscribers migrate from these earlier networks to new networks in the newly allocated bands. Nor has there been any recognition that the upgrading of existing cellular and PCS systems to handle more advanced services (e.g. those designated as 2.5G) may satisfy some of the claimed demand for new spectrum for advanced wireless services. Plans for such transitions and migration of

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[27] *See e.g.* Comments of Telephone and Data Systems at 8.

[28] *See e.g.* Comments of Boeing at 9-14 and SIA at 7-8.

services and facilities that may reduce the urgency for spectrum re-allocations should be part of any cohesive, long-term plan for the re-allocation of spectrum for advanced wireless services.

A. 2 GHz MSS Systems Will Satisfy Part Of The Demand For IMT-2000/3G Advanced Wireless Services

While parties advocating a re-allocation of the 2 GHz MSS bands point to the concept of IMT-2000/3G networks in support of their position, they over look the fact that the IMT-2000 concept explicitly includes the 2 GHz MSS as an integral component.[29] The framework for advanced wireless services, whether designated as IMT-2000 or third generation ("3G") wireless, includes both a satellite and a terrestrial component in order to provide global access and interconnectivity.[30] The authorization of an ancillary terrestrial component to MSS in the 2 GHz bands will enable these bands to be used in meeting the demands for advanced wireless services in all parts of the country, and is a spectrum efficient approach to implementing the vision of IMT-2000 and 3G. Consequently, the 70 MHz of spectrum allocated for 2 GHz MSS systems should be included as contributions to the total amount of spectrum allocated for advanced wireless services. The fact that this MSS spectrum is not licensed to terrestrial CMRS carriers should not detract from the fact that the spectrum assigned to 2 GHz MSS systems satisfies some of the overall demand for advanced wireless services.

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[29] *See e.g.* ITU-R Recommendation M.818-1, ITU Resolution 212 (WRC-97) and ITU Resolution 223 (WRC-2000). *See also* §2.106, footnote S5.388.

[30] *See e.g.* Comments of Celsat America at 2-5 and New ICO Global at 22-25.

B. Existing And Proposed Allocations Exceed Identified Spectrum Requirements For Advanced Wireless Services

Various estimates of the amount of spectrum needed for advanced wireless services range from 120 to 200 MHz,[31] or up to a total of 390 MHz for CMRS, including existing allocations.[32] Regardless of the validity of these claims, the Commission is in the position to credibly satisfy the spectrum demands for advanced wireless services without re-allocating MSS spectrum.

Many parties support the allocation of 1710 – 1770 MHz and 2110 – 2170 MHz for advanced wireless services, including the re-allocation of the 2150 – 2162 MHz band from MDS.[33] The 2165 – 2170 MHz portion of the second band is currently allocated to MSS, and re-allocation of this sub-band would result in an imbalance between the 2 GHz MSS uplink and downlink allocations. However, there is no sound justification to re-allocate the 2165 – 2170 MHz sub-band from MSS simply to maintain a pair of 60 MHz blocks for terrestrial services. Several parties have pointed to the absence of unpaired spectrum blocks to support Time Division Duplex ("TDD") implementations of IMT-2000/3G.[34] If the Commission is to maintain some measure of technical neutrality between TDD and Frequency Division Duplex ("FDD") implementations of IMT-2000/3G technology, some imbalance in paired and unpaired allocations for terrestrial CMRS appears necessary. Moreover, no technical basis has been presented to justify a minimum 60 MHz block of paired spectrum, as compared to a 55 MHz block of paired spectrum.

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31 *See e.g.* Comments of ATT Wireless at 4, Cingular at 2, CTIA at 10, Telephone and Data Systems at 5 and TIA/WCD at 8.

32 *See* Comments of Verizon at 2.

33 *See e.g.* Comments of ATT Wireless at 5, CTIA at 8-9, Ericsson at 8, Motorola at 13, TIA/WCD at 4-5 and Verizon at 8.

Consequently, a 5 MHz block of spectrum at the top of the 1710 – 1770 MHz band, i.e. at 1765 – 1770 MHz, is a suitable location for unpaired spectrum to implement TDD systems. Additional blocks of unpaired spectrum can be allocated for TDD operations if additional spectrum can be made available in the 1770 – 1850 MHz band as a result of further NTIA studies. The paired spectrum blocks at 1710 – 1765 MHz and 2110 – 2165 MHz and a TDD spectrum block at 1765 – 1770 MHz comprise a total of 115 MHz of non-MSS spectrum that can be made available for allocation for the provision of advanced wireless services by terrestrial CMRS carriers. The 55 MHz of paired spectrum blocks can accommodate at least 5 sets of paired bands (four blocks of 10 MHz and one block of 15 MHz) for auction.

The allocation proposals articulated in the Further Notice to satisfy the requirements for additional spectrum for advanced wireless services will be complemented by the 60 MHz to be obtained by the re-allocation of UHF-TV channels 60 – 69. This additional 60 MHz block of spectrum, together with the 115 MHz block of spectrum identified above, comprises a total of 175 MHz of new spectrum for advanced wireless services. This amount of new spectrum falls well within the range of 120 to 200 MHz of additional spectrum requested by the terrestrial CMRS carriers in their comments.

Finally, even if the claimed spectrum requirement for a total of 390 MHz for CMRS is correct,[35] it can be easily satisfied without re-allocation of the 2 GHz MSS bands. The combination of the 115 MHz that can be allocated in the 1710 – 1770 MHz and 2110 – 2165 MHz bands in this proceeding, the 70 MHz of 2 GHz MSS allocations available for ancillary

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[34] *See e.g.* Comments of Orange Group at 4, Siemens at 2 and TDD Coalition.

[35] *See* Comments of Verizon, at 2 citing ITU-R Recommendation M.2023.

terrestrial operations in urban areas where demand is the greatest, the 179 MHz already allocated for CMRS,[36] and the 60 MHz to be made available from UHF-TV channels 60 - 69[37] exceed this estimate of required spectrum.

C. The Allocation And Usage Of The 1910 – 1930 MHz And 2385 – 2400 MHz Bands Needs To Be Optimized

A large number of parties support the re-allocation of the 2150 – 2160 MHz band for advanced wireless services.[38] The MDS operators appear to be amenable to a re-allocation of the 2150-2162 MHz band for advanced wireless services if an equivalent replacement band is found, including appropriate technical standards, flexible use rights, and relocation arrangements.[39] The most likely bands for re-accommodation of MDS return links are the 1910 – 1920 MHz and 2385 – 2400 MHz bands.

Although there appears to be some acceptance of the Commission's characterization of the light usage of the 1910 – 1920 MHz band for asynchronous UPCS,[40] several manufacturers of isosynchronous PBX exchanges argue that the demand for indoor wireless PBXs is growing. Since the 1910 – 1930 MHz band is wider than the current MDS band, it may be possible to relocate MDS return links to a portion of this band, while retaining the rest for isosynchronous UPCS. The 1910 – 1930 MHz band appears to be an acceptable band from a propagation point

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36 *See* Comments of Verizon at 2, n. 5.

37 *See* Re-allocation of Television Channels 60 – 69 (the 746 – 806 MHz Band), ET Docket No. 97-157, Report Order, 12 FCC Rcd 22953 (1998), *recon.* 13 FCC Rcd 21578 (1998); Service Rules for the 746 – 764 and 776 – 794 MHz Bands and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, First Report and Order, 15 FCC Rcd 476 (2000).

38 These parties include ATT Wireless, Cingular, CTIA, TIA/WCD, TDS, Verizon.

39 *See e.g.,* Comments of the Ad Hoc MDS Alliance, Nucentrix, Sprint, WorldCom and Wireless Communications Association.

40 *See e.g.* Comments of NEC America at 23-24, UTAM at 10 and UTStarcom at 2.

of view according to the MDS proponents, although concerns have been raised by the adequacy of current filtering requirements for out-of-band emissions and guardbands to protect the PCS uplink and downlink spectrum blocks on either side of the unlicensed band.[41] One approach would be to locate MDS in the center of the 1910 – 1930 MHz band, and permit unlicensed operations at either edge. An alternative would be to re-locate MDS into the 2385 – 2400 MHz band.[42]

The type of operations conducted by the current users of the 1910 – 1930 MHz band can be accommodated in other unlicensed bands, or in the 2385 – 2400 MHz band since unlicensed PCS appears to be a compatible use of the band.[43] There may also be other areas where the iso-synchronous UPCS and community wireless systems may be accommodated.

Although a basic framework may exist for deciding the future utilization of the 1910 – 1930 MHz and 2385 – 2400 MHz band, additional details appear to be required in order to implement an optimum utilization of these bands and to implement the relocation of MDS facilities from the 2150 – 2163 MHz band. In addition to technical standards to ensure technical compatibility while providing flexible frequency usage of these bands, sufficient time should be provided to allow existing UPCS equipment to be amortized and product lines re-designed for any new band arrangement.

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41 *See e.g.* Comments of CTIA at 3, Motorola at 15-18 and Verizon at 9-10.

42 *See e.g.* Comments of Verizon at 10-11.

43 *See e.g.* Comments of Verizon at 10-11.

III. Conclusion

Constellation urges the Commission to retain the current 2 GHz MSS allocations in their entirety and refrain from a rash determination of the future of 2 GHz MSS systems by regulatory fiat. Constellation believes that the Commission's proposals to re-allocate MSS spectrum in its Further Notice would have a chilling effect on the viability of the MSS service, and constitute a radical departure from past precedents supporting the evolution of new technologies to serve the public. Instead, the Commission should re-affirm its recent, market-oriented 2 GHz MSS licensing decisions by clarifying the flexibility of 2 GHz MSS systems to fully utilize the spectrum currently allocated for them and consolidate their operations to achieve greater efficiencies.

The Commission should also recognize that 2 GHz MSS systems will satisfy part of the overall demand for advanced wireless services in both rural and urban areas. The additional spectrum requirements requested by terrestrial CMRS carriers can be satisfied without re-allocating any of the 2 GHz MSS spectrum. The allocation of the 1710 – 1770 MHz and 2110 – 2165 MHz bands proposed in the Further Notice, combined with the spectrum obtained from the re-allocation of UHF TV channels 60 – 69, are sufficient to satisfy the demonstrated requirements for additional spectrum for advanced wireless services by terrestrial carriers. The 1910 – 1930 MHz and 2385 – 2400 MHz bands identified for possible re-allocation in the Further Notice may be better utilized to re-accommodate displaced MDS facilities and to support

UPCS operations under modified technical and operating rules along the lines advocated in the captioned petitions for rulemaking.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Patricia A. Gibson, hereby certify that I have on this 8th day of November, 2001, caused copies of **REPLY COMMENTS OF CONSTELLATION COMMUNICATIONS HOLDING, INC.**, to be delivered by first-class mail, postage prepaid, to the following persons:

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